USDA Foreign Agricultural Service

Iraq: Crop Progress Report

MY 2009/10

April Report – Week 2 **April 17th, 2009**

1. The current outlook for MY 2009/10 winter grain production (wheat and barley) in Iraq is only marginally better than last year's severely drought-affected crop. Less than adequate rainfall and/or irrigation supply during the current winter season has resulted in similarly poor or worse vegetative crop conditions than last year over large regional areas, particularly in the northern rainfed provinces of Ninawa, At Ta'min and Arbil, in addition to the southern irrigated provinces of Diyala, and portions of Wasit and Al Qadisiyah. It appears that total irrigated grain area will decline in MY2009/10 and that poor yields relative to last year in some of the highest yielding irrigated crop areas will prevent a recovery in national winter grain production. Though winter grain production prospects are improved in some northern rainfed growing provinces this year, major producers such as Ninawa show little change from last year. It is anticipated that the production shortfalls in the south will be greater in size than the increases expected from areas that have improved in the north. Generally poor current crop conditions are expected to result in well below-normal national grain production for the second consecutive year.

2. Cumulative precipitation for MY 2009/10 is slightly higher than the previous year, but remains well below normal throughout the country (Figure 1). The majority of cropland areas in Iraq have experienced well below normal precipitation throughout the season, with the southern governorates receiving above normal precipitation during the current month of April 2009 (Figure 2). A frontal system is expected to pass through Iraq over the next few days bringing light showers to the north, but with the normal harvest period fast approaching these modest showers will not be sufficient to offset existing moisture deficits or poor crop conditions.

3. Regional NDVI time-series vegetative index images reveal there is currently similar to worse vegetative crop conditions than last year in many areas of Iraq's grain producing regions. This is particularly unexpected in the primarily irrigated southern provinces where grain production is usually much more stable. Reports from Iraq indicate that there has been a significant irrigation supply shortfall this year along the Tigris River, owing to substantially reduced water flow from Turkey. NDVI vegetation index analysis also indicates there is much less crop vigor and abundance than the previous benchmark year of MY 2006/07, when Iraq produced normal sized wheat crop of 2.5 million tons (Figure 3). NDVI change analysis indicates large areas of normally irrigated cropland in Diyala, and portions of Wasit and Al Qadisiyah that are showing much reduced vegetative growth from last year (Figure 4), and the 5-year average (Figure 5); this is indicative of diminished production prospects. The northwestern portions of Wasit and Al Qadisiyah have recently shown areas of significant green-up in comparison to the previous year and the 5-year average, but the field areas do not appear large enough to offset the prospected deficit.

4. A multi-sensor assessment of Ninawa province using MODIS NDVI, AWiFS NDVI, and high resolution Quickbird imagery collected in early-April confirms that little to no crop growth occurred in the country's largest wheat and barley producer, which typically accounts for 20% of total wheat and 32% of total barley production (Figure 6). By early-April most crop fields should be showing peak crop emergence, but the recent satellite imagery revealed that a majority of large rainfed fields throughout the province are completely barren. Quickbird imagery collected over At Ta'min was also compared to the previous year and revealed slightly higher crop production in the southwestern portion of the province. However, MODIS NDVI change analysis indicated that the majority of cropland is well-below average when compared to the previous drought year of MY 2008/09 (Figure 7). Production for At Ta'min is severely diminished, which typically produces 10% of total wheat and 3% of total barley.

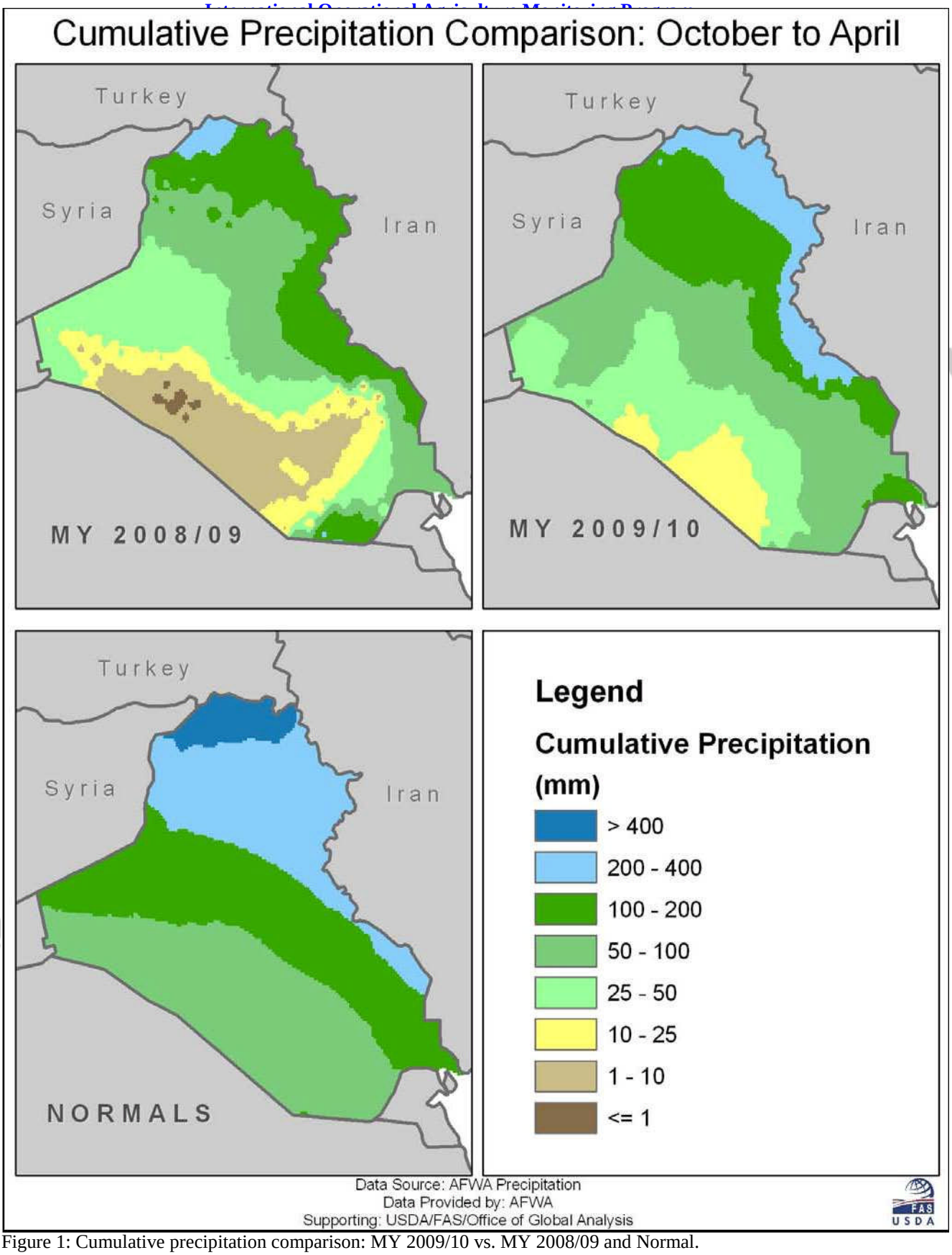


Figure 1: Cumulative precipitation comparison: MY 2009/10 vs. MY 2008/09 and Normal.

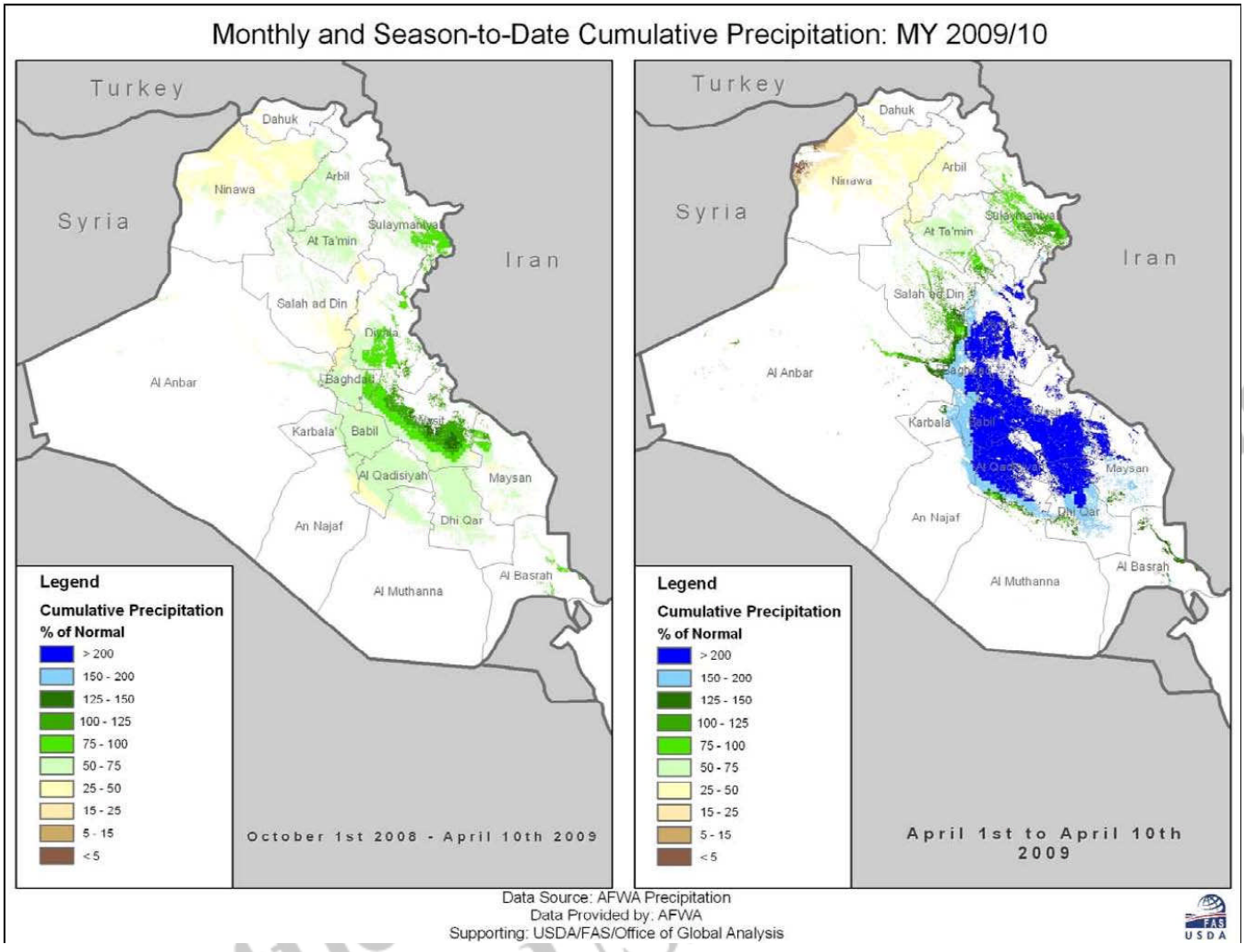


Figure 2: Percent of normal monthly and season-to-date precipitation.

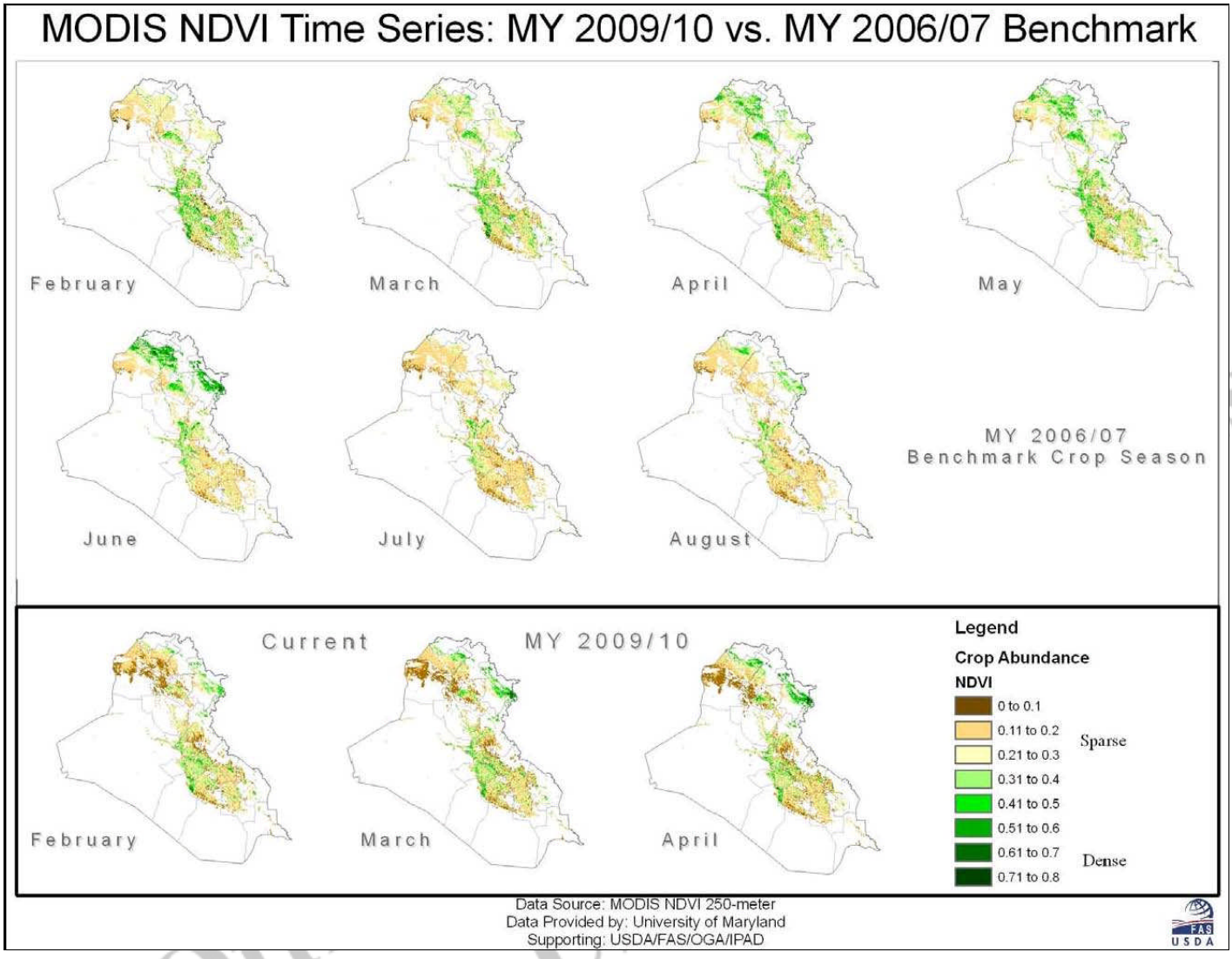


Figure 3: Regional perspective of seasonal NDVI: Current MY 2009/10 compared with benchmark year MY 2006/07.

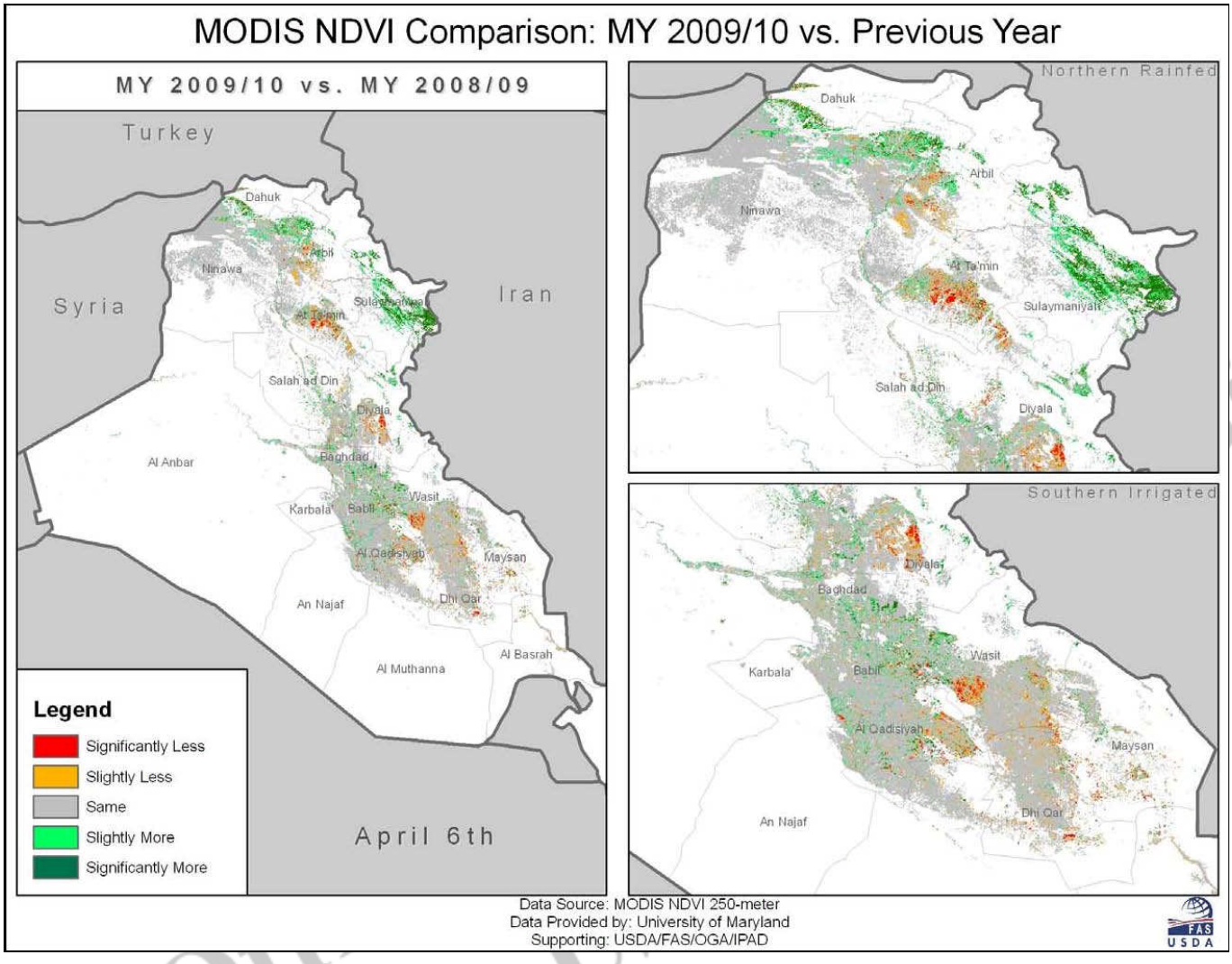


Figure 4: MODIS NDVI change analysis: Current MY 2009/10 compared with previous year MY 2008/09.

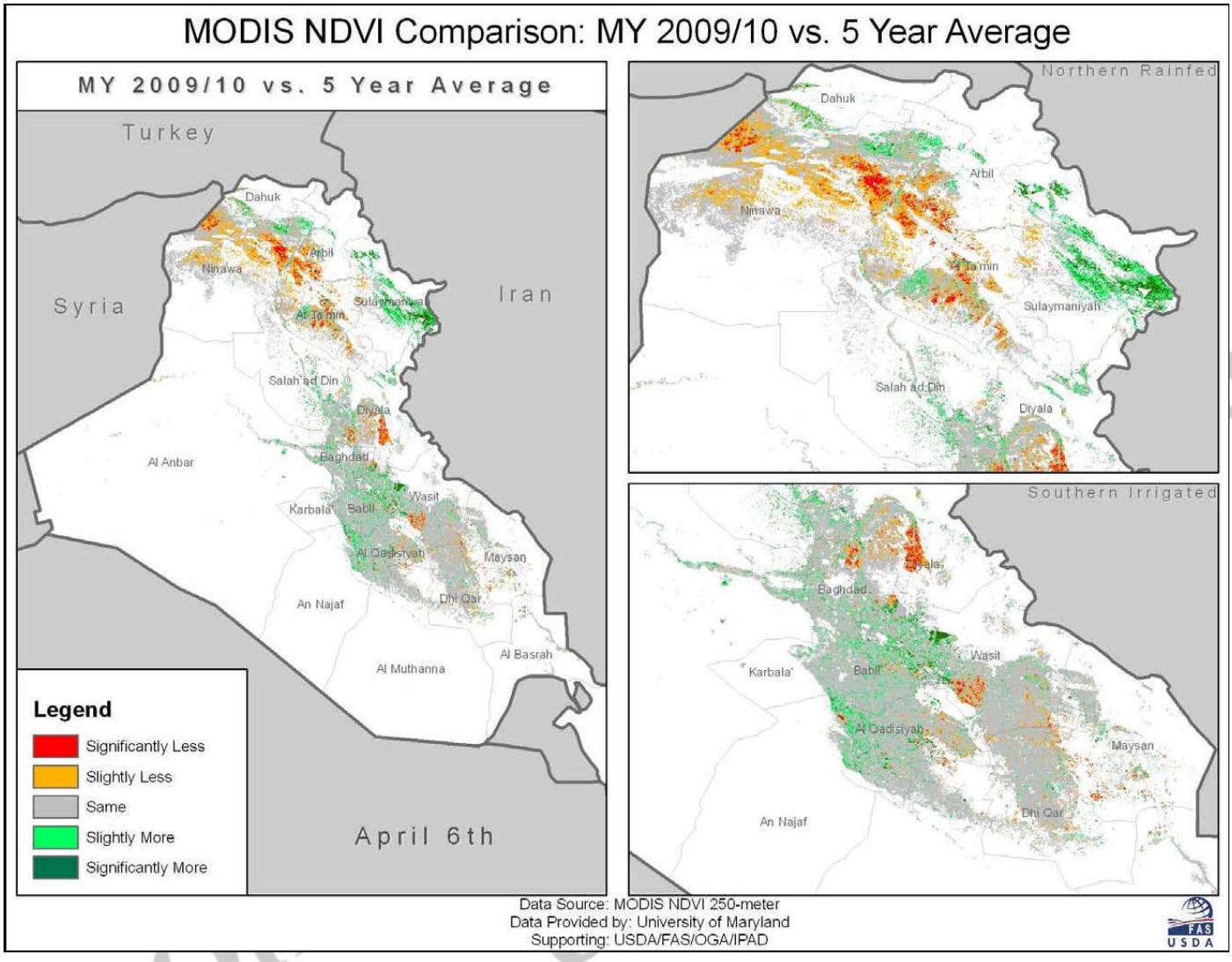


Figure 5: MODIS NDVI change analysis: Current MY 2009/10 compared with 5-year average.

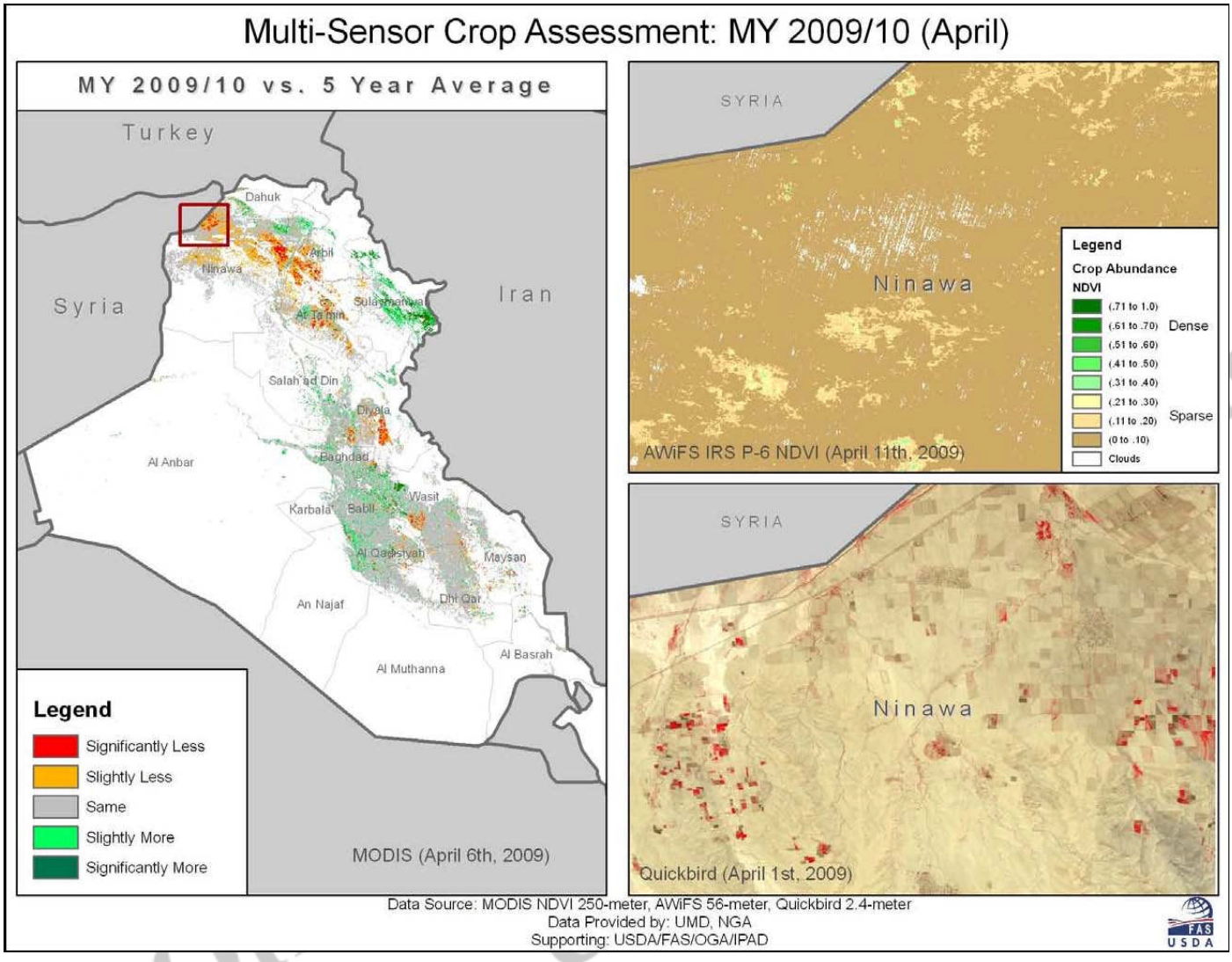


Figure 6: Multiple sensor analysis revealing large areas of barren field in major grain producing province of Ninawa.

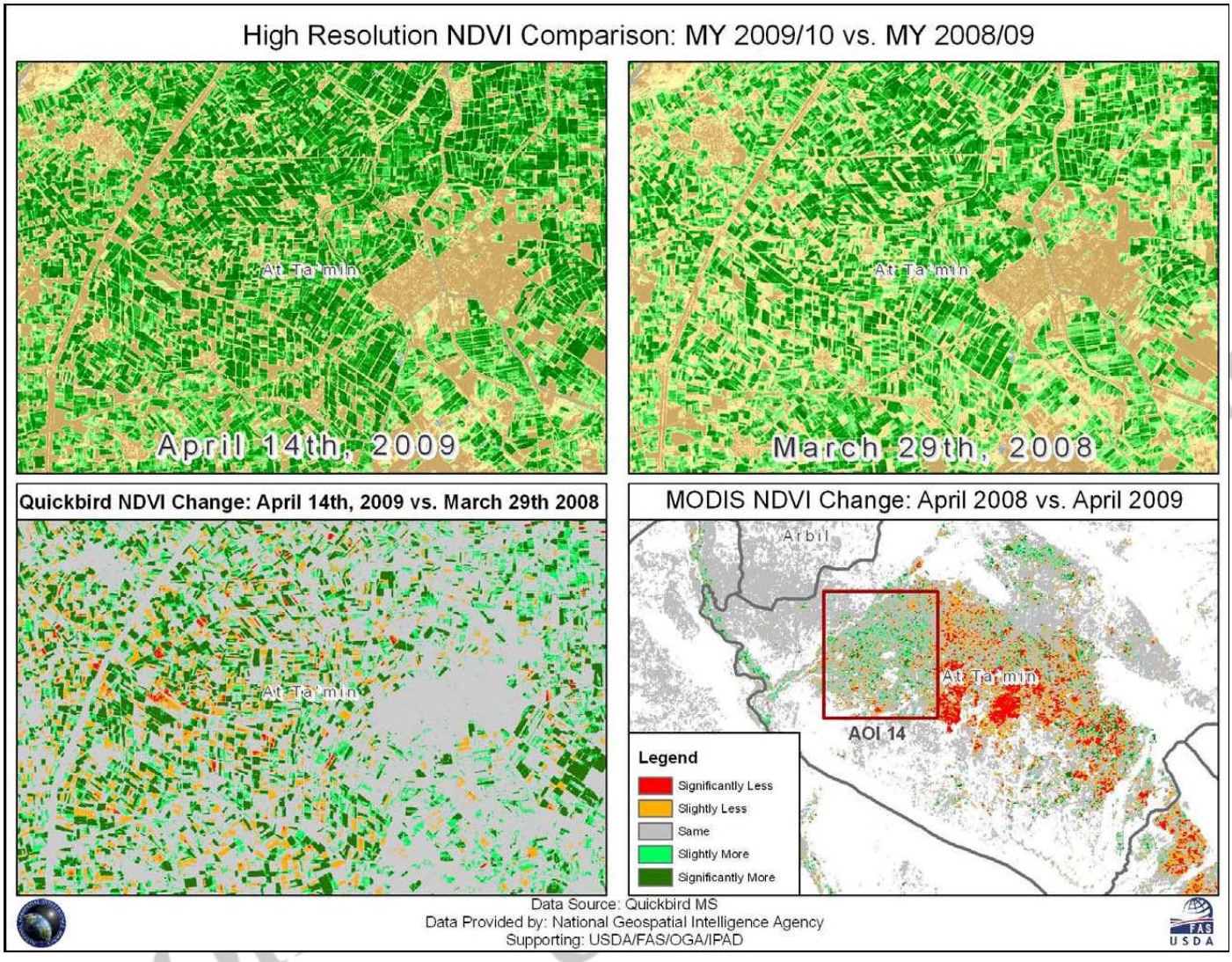
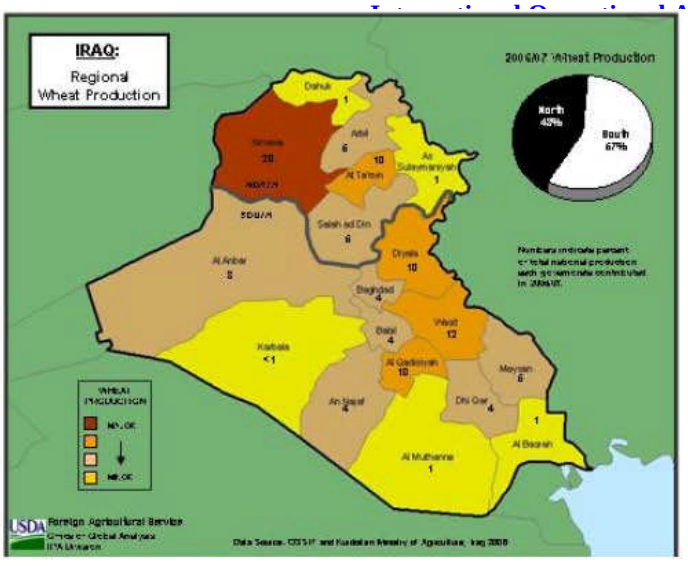
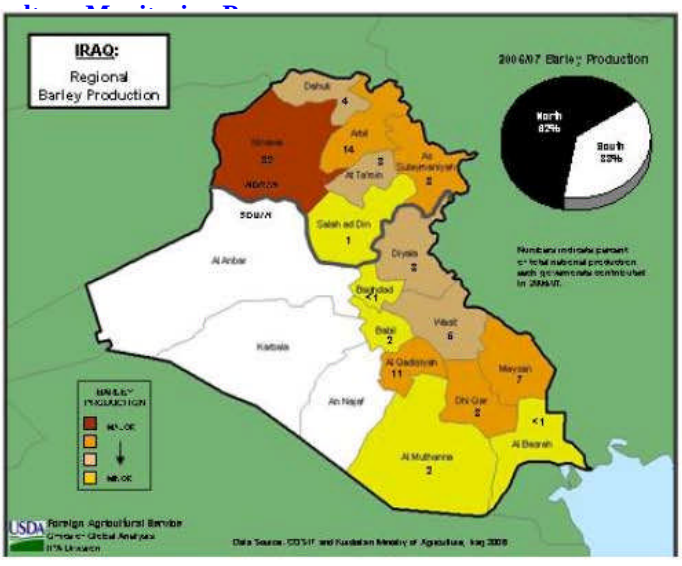
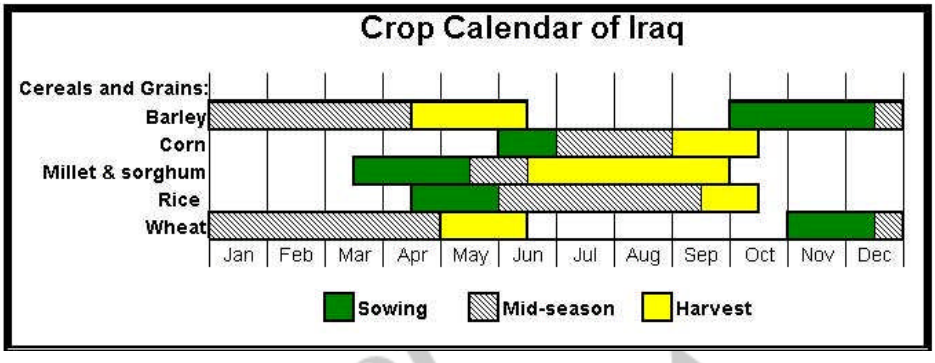


Figure 7: Quickbird and MODIS NDVI change analysis revealing increased and reduced production areas in At Ta'min.







For more information contact:
Michael Shean | michael.shean@fas.usda.gov | (202) 720-7366 USDA-FAS, OGA or
Sean Griffin |sean.griffin@asrcms.com| (202) 720-9107 ASRC Management Services.